



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/665,326	09/18/2003	Earl O. Bergersen	BER-P-03-052	6248
29013	7590	10/29/2007	EXAMINER	
PATENTS+TMS, P.C. 2849 W. ARMITAGE AVE. CHICAGO, IL 60647			O'CONNOR, CARY E	
			ART UNIT	PAPER NUMBER
			3732	
			MAIL DATE	DELIVERY MODE
			10/29/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/665,326

Applicant(s)

BERGERSEN, EARL O.

Examiner

Cary E. O'Connor

Art Unit

3732

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 16 August 2007.
2a) This action is **FINAL**. 2b) This action is non-final.
3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-123 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) Claim(s) 1-13,21-29,47-64 and 92-117 is/are allowed.
6) Claim(s) 14,16,19,20,30-46,65-75 and 77-92 is/are rejected.
7) Claim(s) 15,17,18 and 76 is/are objected to.
8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
4) Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
5) Notice of Informal Patent Application
6) Other: _____.

DETAILED ACTION

Upon further consideration, the indicated allowability of claims 14, 30, 40, 65, 78, and 117-123 is withdrawn. Rejections based on the reference(s) follow.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 40-46, 77-86 and 121 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification does not describe how the hinges are used if the width of the arches is different.

Claims 66-69 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Each of claims 66, 67 and 69 recite the limitation "the projection" in line 2. There is insufficient antecedent basis for this limitation in the claims.

Claim 68 recites the limitation "the projection" in lines 2-3. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 14, 19, 20 and 118 are rejected under 35 U.S.C. 102(b) as being anticipated by Bergersen (4,784,605). Bergersen '605 shows a dental appliance comprising a U-shaped upper base 12, a U-shaped lower base 14, having an occlusal surfaces wherein the occlusal surface contacts the teeth when the base is worn wherein the base has a thickness defined between a first end and a second end wherein the occlusal surface contacts each molar when the base is worn to prevent the molar from achieving a malocclusion position. The appliance also includes a concave portion 24 that moves the tongue to an elevated position relative to the lower teeth (column 3, lines 1-12). As to claim 19, the appliance includes a shield 16 extending from the upper base.

Claim 87-90 and 119 are rejected under 35 U.S.C. 102(b) as being anticipated by Bergersen (5,876,199). Bergersen shows a dental appliance comprising a generally U-shaped upper base 214 which contacts the upper teeth of the user when the upper base is worn; a generally U-shaped lower base 216 adjacent to the upper base and having a socket therein to contact at least one tooth, wherein the lower base contacts lower teeth of the user when the lower base is worn; a cavity 60 formed within the upper base and the lower base wherein the cavity is sized to receive a tongue of the user wherein the

cavity moves the tongue to an elevated position with respect to the lower arch of the user wherein the elevated position of the tongue expands the upper arch of the user; and a hinge 212 connecting the upper base and the lower base. As to claim 90, note that the appliance has lingual tabs 46. Regarding claim 119, the occlusal surfaces are flat and are sized to fit many different sizes of teeth and mouths (column 5, lines 3-9).

Claim 119 is rejected under 35 U.S.C. 102(b) as being anticipated by Bergersen (6,129,084). Bergersen shows a dental appliance comprising a U-shaped upper base with a flat occlusal surface, a U-shaped lower base with a flat occlusal surface. The bases are sized to fit users of various types of dentition (column 3, lines 31-37) and are hinged together via hinge 34 which could be removed with the proper tools.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 16 and 75 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bergersen (4,784,605) in view of Kussick (5,779,470). Bergersen '605 does not include a reference mark to indicate the proper position for the appliance. Kussick shows a dental appliance having a reference mark to indicate the proper position for the appliance in the mouth (column 5, lines 51-61). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the appliance of

Bergersen with a reference mark, as taught by Kussick, in order to aid in proper placement of the appliance in the mouth.

Claims 30, 33-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over in view of Bergersen (5,876,199) in view of Bergersen (4,784,605). Bergersen '199 does not include a spike formed on the lingual surface of the lower base or the upper base. Bergersen '605 shows a dental appliance comprising an upper base, a lower base, and a spike 26 formed on the lower base to prevent the tongue from moving toward the lower teeth. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the upper or lower base of Bergersen '199 with a spike in the lingual surface as taught by Bergersen '605, to encourage proper tongue positioning to overcome tongue thrust problems. As to claim 35, Bergersen '199 shows that the upper base and the lower base have a rib (the portions between tooth sockets) to contact the upper teeth to adjust the tooth is the correct portion. Regarding claims 33 and 34, note that the rear most socket of Bergersen '199 is sized to receive at least two teeth.

Claims 31 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bergersen (5,876,199) in view of Bergersen (4,784,605) as applied to claim 30 above, and further in view of Bourke (5,536,168). The appliance of Bergersen '199 and '605 does not have a roughened surface. Bourke shows a dental appliance wherein the bases have roughened surface (by virtue of prongs 18) in order to facilitate movement of the teeth. It would have been obvious to one of ordinary skill in the art at the time the

invention was made to provide the bases of Bergersen '535 and '605 with roughened surfaces, as taught by Bourke, to facilitate movement of the teeth.

Claim 39 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bergersen (5,876,199) in view of Bergersen (4,784,605) as applied to claim 30 above, and further in view of Bergersen (6,129,084). The combination of Bergersen '199 and '605 does not include lingual tabs. Bergersen '084 shows a dental appliance comprising upper and lower bases and lingual tabs 28b, 28c extending horizontally from the rear of the lower base. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the appliance of Bergersen '199 and '605 with lingual tabs extending horizontally from the rear of the lower base, in order to help hold the appliance again the lingual surface of the teeth.

Claims 65, 69 and 74 are rejected under 35 U.S.C. 103(a) as being unpatentable over Farrell (5,624,257) in view of Bergersen (4,784,605). Farrell shows a dental appliance 10 comprising upper and lower bases 11, each comprising a socket 15, 16 having a flat occlusal surface with walls 12, 13 extending outward with respect to the occlusal surfaces. The appliance also has a rib 17 for engaging teeth. With regard the statement of intended use and other functional statements, i.e. that the ribs rotate the teeth, etc., they do not impose any structural limitations on the claims distinguishable over Farrell which is capable of being used as claimed if one so desires to do so. *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963). Furthermore, the law of anticipation does not require that the reference "teach" what the subject patent teaches, but rather it is only necessary that the claims under attack "read

on" something in the reference. Kalman v. Kimberly Clark Corp., 218 USPQ 781 (CCPA 1983). Furthermore, the manner in which a device is intended to be employed does not differentiate the claimed apparatus from prior art apparatus satisfying the claimed structural limitations. Ex parte Masham, 2 USPQ2d 1647 (1987). The appliance of Farrell does not include a tongue shaped depression in the base. Bergersen '605 shows a dental appliance comprising a U-shaped upper base 12, a U-shaped lower base 14, having an occlusal surfaces wherein the occlusal surface contacts the teeth when the base is worn. The appliance also includes a concave portion 24 that moves the tongue to an elevated position relative to the lower teeth (column 3, lines 1-12). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the appliance of Farrell with a tongue shape depression formed in the base as taught by Bergersen '605, in order to move the tongue.

Claims 65-70 and 74 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kesling (3,724,075) in view of Bergersen (4,784,605). Kesling shows a dental appliance 10 comprising upper and lower bases, each comprising a socket 56, 57 having a flat occlusal surface with walls 24, 25 extending outward with respect to the occlusal surfaces. The appliance also has a rib 35 on the occlusal surface for engaging teeth. The appliance of Kesling does not include a tongue shaped depression in the base. Bergersen '605 shows a dental appliance comprising a U-shaped upper base 12, a U-shaped lower base 14, having an occlusal surfaces wherein the occlusal surface contacts the teeth when the base is worn. The appliance also includes a concave portion 24 that moves the tongue to an elevated position relative to the lower teeth

(column 3, lines 1-12). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the appliance of Kesling with a tongue shape depression formed in the base as taught by Bergersen '605, in order to move the tongue.

Claim 70 is rejected under 35 U.S.C. 103(a) as being unpatentable over Farrell (5,624,257) in view of Bergersen (4,784,605) as applied to claim 30 above, and further in view of Bergersen (6,129,084). The combination of Farrell and Bergersen '605 does not include lingual tabs. Bergersen '084 shows a dental appliance comprising upper and lower bases and lingual tabs 28b, 28c extending horizontally from the rear of the lower base. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the appliance of Bergersen '199 and '605 with lingual tabs extending horizontally from the rear of the lower base, in order to help hold the appliance against the lingual surface of the teeth.

Claim 71 is rejected under 35 U.S.C. 103(a) as being unpatentable over Farrell (5,624,257) in view of Bergersen (4,784,605) as applied to claim 65 above, and further in view of Bourke (5,536,168). The appliance of Farrell and Bergersen '605 does not have a roughened surface. Bourke shows a dental appliance wherein the bases have roughened surface (by virtue of prongs 18) in order to facilitate movement of the teeth. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the bases of Farrell with roughened surfaces, as taught by Bourke, to facilitate movement of the teeth.

Claims 72 and 73 are rejected under 35 U.S.C. 103(a) as being unpatentable over Farrell (5,624,257) in view of Bergersen (4,784,605) as applied to claim 65 above, and further in view of Bergersen (5,645,420). As to claim 72, the appliance of Farrell as modified by Bergersen '605 does not include a wire embedded within the base. The bases of Bergersen include a wire 104 embedded therein to assist in maintaining the

desired shape. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the bases of Farrell with attachments, as taught by Bergersen '420, in order to assist in maintaining the shape of the appliance. Regarding claim 73, the appliance of Farrell as modified by Bergersen is not formed of a moisture absorbent material. Bergersen '420 shows a dental appliance and discloses that it is formed of a moisture absorbent material (column 10, lines 62-66). It would have been obvious to one of ordinary skill in the art at the time the invention was made to form the appliance of Farrell as modified by Bergersen '605, as taught by Bergersen '420, to enable the patient to apply fluoride or other liquid to the teeth.

Claim 91 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bergersen (5,876,199) in view of Bergersen (4,784,605). The upper and lower bases of Bergersen '199 do not include ribs formed therein. Bergersen '605 shows a dental appliance comprising upper and lower bases. The bases have ribs (area of the bases that are located between the teeth) projecting toward the teeth. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the bases of Bergersen '199 with ribs, as taught by Bergersen '605, in order to move the teeth into the correct positions.

Claim 120 rejected under 35 U.S.C. 103(a) as being unpatentable over Kesling (3,724,075) in view of Bergersen (5,645,420). Kesling shows a dental appliance 10 comprising upper and lower bases, each comprising a socket 56, 57 having a flat occlusal surface with walls 24, 25 extending outward with respect to the occlusal surfaces. The appliance also has a rib 35 on the occlusal surface for engaging teeth.

The appliance is not formed of a moisture absorbent material. Bergersen '420 shows a dental appliance and discloses that it is formed of a moisture absorbent material (column 10, lines 62-66). It would have been obvious to one of ordinary skill in the art at the time the invention was made to form the appliance of Kesling, as taught by Bergersen '420, to enable the patient to apply fluoride or other liquid to the teeth.

Claim123 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bergersen (4,898,535) in view of Bergersen (5,645,420). Bergersen '535 shows a dental appliance comprising an upper base, a lower base, and a hinge 44. The hinge may be made of metal (column 3, lines 30-31) which is inherently harder than the material that forms the bases. Bergersen does not teach that the bases are formed of a moisture resistant material. Bergersen '420 shows a dental appliance and discloses that it is formed of a moisture absorbent material (column 10, lines 62-66). It would have been obvious to one of ordinary skill in the art at the time the invention was made to form the appliance of Bergersen '535 of a moisture absorbent material, as taught by Bergersen '420, to enable the patient to apply fluoride or other liquid to the teeth.

Claim122 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bergersen (4,874,605) in view of Bergersen (5,645,420). Bergersen '605 shows a dental appliance comprising a U-shaped upper base 12, a U-shaped lower base 14, having an occlusal surfaces wherein the occlusal surface contacts the teeth when the base is worn wherein the base has a thickness defined between a first end and a second end wherein the occlusal surface contacts each molar when the base is worn to prevent the molar from achieving a malocclusion position. The lingual surface has a

projection 24. With regard the statement of intended use and other functional statements, i.e. that the projection or rib corrects thumb sucking., they do not impose any structural limitations on the claims distinguishable over Farrell which is capable of being used as claimed if one so desires to do so. *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963). Furthermore, the law of anticipation does not require that the reference "teach" what the subject patent teaches, but rather it is only necessary that the claims under attack "read on" something in the reference. *Kalman v. Kimberly Clark Corp.*, 218 USPQ 781 (CCPA 1983). Furthermore, the manner in which a device is intended to be employed does not differentiate the claimed apparatus from prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987). Bergersen does not teach that the bases are formed of a moisture resistant material. Bergersen '420 shows a dental appliance and discloses that it is formed of a moisture absorbent material (column 10, lines 62-66). It would have been obvious to one of ordinary skill in the art at the time the invention was made to form the appliance of Bergersen '605 of a moisture absorbent material, as taught by Bergersen '420, to enable the patient to apply fluoride or other liquid to the teeth.

Specification

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction

Art Unit: 3732

of the following is required: the specification does not provide antecedent basis for the projection positioned on the occlusal surface (claims 66 and 67).

Allowable Subject Matter

Claims 1-13, 21-29, 47-64, 92-117 are allowed.

Claims 15, 17, 18 and 76 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cary E. O'Connor whose telephone number is 571-272-4715. The examiner can normally be reached on M-Th 7:00-3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cris Rodriguez can be reached on 571-2724964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Cary E O'Connor
Cary E. O'Connor
Primary Examiner
Art Unit 3732

Ceo